



Motor Vehicle Traffic Crashes as a Leading Cause of Death in the United States, 2007

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Summary

In 2007, motor vehicle traffic crashes were the leading cause of death for every age 3 through 5, 8, 9 and 11 through 33. Because of the young lives consumed, motor vehicle traffic crashes ranked third overall in terms of the years of life lost, i.e., the number of remaining years that people were expected to live had they not died, behind only cancer and heart diseases. The table (page 2) shows the 10 leading causes of death by age group in 2007. The age groups reflect categories of interest to the National Highway Traffic Safety Administration in terms of child-restraint programs (toddlers, infants, and young children), new drivers (youth and young adults), other adults, and older people.

Background

This Research Note examines the status of motor vehicle traffic crashes as a leading cause of death in the United States in 2007. This note reflects an update of a prior research note (DOT HS 811 226) that was based on the mortality data for 2006. It is based on a study of the ranking of 68 causes of death, which have been adopted by NHTSA's National Center for Statistics and Analysis (NCSA). This study was originally prompted by a number of unanswered questions regarding adequate background material and appropriate information pertaining to the general concept of motor vehicle traffic crashes as a leading cause of death. Although the National Center for Health Statistics (NCHS), in its annual report on mortality, publishes detailed tabulations of the leading causes of death, the fatalities due to motor vehicle traffic crashes are lumped into the very general category of *Unintentional Injuries*. Fatalities due to motor vehicle traffic crashes comprise a significant proportion of all fatalities due to unintentional injuries, especially at younger ages, and this has prompted NHTSA to separate motor vehicle crashes as an individual cause of death in this report. NCSA added

the computation of the years of lost life to the conventional rank ordering of the causes of death in order to highlight the tremendous toll that motor vehicle traffic crashes have on the younger population. In fact, while motor vehicle traffic crashes ranked ninth overall as a cause of death, they were ranked as high as third in terms of the years of life lost.

Methodology

Years of Life Lost: This is the number of remaining years that people were expected to have lived had they not died. The number of years of life lost due to a particular cause is the aggregate of years of life lost for all people who died due to that cause. The expected years of remaining life are calculated using standard tables of life expectancy by age (Life Expectancy at Selected Ages for 2006, NCHS).

The NCSA-adopted listing of 68 causes of death is comprehensive in that all underlying causes are represented. Fifty-one of these 68 adopted causes reflect the underlying causes based on **internal** morbid bodily conditions, while 16 NCSA-adopted causes reflect the underlying causes based on **external** factors such as crashes and acts of violence, and the remaining cause reflects all other diseases. This 68-cause listing is not an arbitrary listing, but is generally in close agreement with a special listing of death causes used by the NCHS to report on leading causes of death in the United States. The latter differs from the NCSA listing primarily in causal areas related to unintentional injuries (accidental death). While NCHS uses the combined cause of *unintentional injuries* in its reports of leading causes of death, this study separates out the various causes that comprise unintentional injuries like fatalities in motor vehicle traffic crashes, accidental falls, poisoning, motor vehicle nontraffic crashes, etc. Accordingly, the rankings of some causes of death will differ from those reported by NCHS. The NCSA cause listing also differs from the NCHS listing for causes of infant mortality. While NCHS, for reasons of public health interest, uses a detailed 130-cause listing, the NCSA list combines it into one major cause—conditions originating in the *perinatal period*.

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Top 10 Leading Causes of Death in the United States for 2007, by Age Group¹

National Highway Traffic Safety Administration's National Center for Statistics and Analysis

| R A N K | Cause and Number of Deaths | | | | | | | | | | | Years of Life Lost ² |
|------------------------|---------------------------------------|--|---|--|--|--|---|---|--|---------------------------------------|--|--|
| | Infants Under 1 | Toddlers 1-3 | Young Children 4-7 | Children 8-15 | Youth 16-20 | Young Adults 21-24 | Other Adults | | | Elderly 65+ | All Ages | |
| | | | | | | | 25-34 | 35-44 | 45-64 | | | |
| 1 | Perinatal Period 14,466 | Congenital Anomalies 491 | Malignant Neoplasms 393 | MV Traffic Crashes 1,254 | MV Traffic Crashes 5,360 | MV Traffic Crashes 4,545 | MV Traffic Crashes 6,842 | Malignant Neoplasms 13,288 | Malignant Neoplasms 153,338 | Heart Disease 496,095 | Heart Disease 616,067 | Malignant Neoplasms 23% (8,755,448) |
| 2 | Congenital Anomalies 5,785 | Accidental Drowning 396 | MV Traffic Crashes 362 | Malignant Neoplasms 786 | Homicide 2,711 | Homicide 2,656 | Accidental Poisoning 5,700 | Heart Disease 11,839 | Heart Disease 102,961 | Malignant Neoplasms 389,730 | Malignant Neoplasms 562,875 | Heart Disease 19% (7,292,004) |
| 3 | Heart Disease 424 | Homicide 341 | Congenital Anomalies 184 | Homicide 437 | Suicide 1,784 | Suicide 2,198 | Suicide 4,278 | Accidental Poisoning 7,575 | Diabetes 17,057 | Stroke 115,961 | Stroke 135,952 | MV Traffic Crashes 4% (1,678,722) |
| 4 | Homicide 352 | MV Traffic Crashes 331 | Accidental Drowning 152 | Suicide 340 | Accidental Poisoning 1,178 | Accidental Poisoning 1,933 | Homicide 4,758 | Suicide 6,722 | Chronic Lwr. Resp. Dis. 16,930 | Chronic Lwr. Resp. Dis. 109,562 | Chronic Lwr. Resp. Dis. 127,924 | Chronic Lwr. Resp. Dis. 4% (1,495,554) |
| 5 | Septicemia 283 | Malignant Neoplasms 268 | Homicide 150 | Congenital Anomalies 288 | Malignant Neoplasms 724 | Malignant Neoplasms 805 | Malignant Neoplasms 3,463 | MV Traffic Crashes 6,135 | Stroke 16,885 | Alzheimer's 73,797 | Alzheimer's 74,632 | Stroke 4% (1,467,204) |
| 6 | Influenza/ Pneumonia 222 | Heart Disease 153 | Exposure to Smoke/Fire 143 | Heart Disease 217 | Heart Disease 396 | Heart Disease 643 | Heart Disease 3,223 | HIV 3,572 | Chronic Liver Disease 16,216 | Diabetes 51,528 | Diabetes 71,382 | Suicide 3% (1,206,942) |
| 7 | Nephritis/ Nephrosis 144 | Exposure to Smoke/Fire 152 | Heart Disease 89 | Accidental Drowning 183 | Accidental Drowning 337 | Accidental Drowning 244 | HIV 1,091 | Homicide 3,052 | Suicide 12,847 | Influenza/ Pneumonia 45,941 | Influenza/ Pneumonia 52,717 | Accidental Poisoning 3% (1,148,495) |
| 8 | Stroke 132 | MV Nontraffic Crashes ⁴ 105 | MV Nontraffic Crashes ⁴ 60 | Exposure to Smoke/Fire 126 | Congenital Anomalies 180 | Congenital Anomalies 179 | Diabetes 610 | Chronic Liver Disease 2,570 | Accidental Poisoning 12,126 | Nephritis/ Nephrosis 38,484 | Nephritis/ Nephrosis 46,448 | Perinatal Period 3% (1,132,633) |
| 9 | MV Traffic Crashes 122 | Influenza/ Pneumonia 98 | Influenza/ Pneumonia 41 | Accidental Poisoning 122 | MV Nontraffic Crashes ⁴ 143 | MV Nontraffic Crashes ⁴ 137 | Stroke 505 | Stroke 2,133 | MV Traffic Crashes 10,439 | Septicemia 26,362 | MV Traffic Crashes 42,031 | Diabetes 3% (1,042,725) |
| 10 | Meningitis 82 | Septicemia 70 | Chronic Lwr. Resp. Dis. 38 | MV Nontraffic Crashes ⁴ 107 | Accidental Falls 106 | Accidental Falls 120 | Congenital Anomalies 417 | Diabetes 1,984 | Nephritis/ Nephrosis 6,673 | Hypertension Renal Dis. 20,101 | Septicemia 34,828 | Homicide 2% (866,856) |
| ALL³ | 29,138 | 4,000 | 2,396 | 5,826 | 15,696 | 16,914 | 42,572 | 79,606 | 471,796 | 1,755,567 | 2,423,712 | All Causes 100% (37,407,010) |

¹When ranked by specific ages, motor vehicle crashes are the leading cause of death for each age 3 through 5, 8, 9 and 11 through 33.

²Number of years calculated based on remaining life expectancy (2006 data from CDC) at time of death; percents calculated as a proportion of total years of life lost due to all causes of death.

³Not a total of top 10 causes of death.

⁴A motor vehicle nontraffic crash is any vehicle crash that occurs entirely in any place other than a public highway.

Source: National Center for Health Statistics (NCHS) CDC, Mortality Data 2007.

Note: The cause of death classification is based on the National Center for Statistics and Analysis (NCSA) Revised 68 Cause of Death Listing. This listing differs from the one used by the NCHS for its reports on leading causes of death by separating out unintentional injuries into separate causes of death, i.e., motor vehicle traffic crashes, accidental falls, motor vehicle nontraffic crashes, etc. Accordingly, the rank of some causes of death will differ from those reported by the NCHS. This difference will mostly be observed for minor causes of death in smaller age groupings.